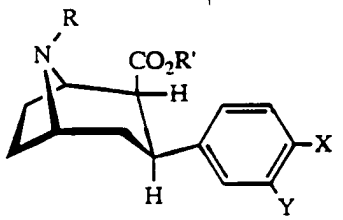
RBI-101XX

AN IODINATED NEUROPROBE FOR MAPPING MONOAMINE REUPTAKE SITES

ABSTRACT

An iodinated neuroprobe is provided for mapping monoamine reuptake sites. The iodinated neuroprobe is of the formula:



wherein

R = a C_nH_{2n+1} group where n=0-6, an alkenyl group, a monofluoroalkyl group including ^{n}F where n=18 or 19, or a $^{m}C_nH_{2n+1}$ group where n=1-6 and where m=11 or 14 for at least one ^{m}C;

R′= a C_nH_{2n+1} group where n=0-6, a *p*-iodophenylmethyl group, a *p*-iodophenylethyl group, a phenylmethyl group, or a phenylethyl group;

X = an isotope of F, an isotope of Cl, an isotope of Br, an isotope of I, CH_3, or $Sn(R"_1R"_2R"_3)$;

$R"_1$= a C_nH_{2n+1} group where n=1-6, or an aryl group;

$R"_2$= a C_nH_{2n+1} group where n=1-6, or an aryl group;

$R"_3$= a C_nH_{2n+1} group where n=1-6, or an aryl group; and

Y = H only if X is an isotope of I, or R′ is a *p*-iodophenylmethyl group, or R′ is a *p*-iodophenylethyl group, else Y = an isotope of I.

Related analogs are also provided. Additionally, a precursor of a radiolabled neuroprobe and a kit for preparing the iodinated neuroprobe are provided.